CLAIMS

1. A cylindrical rotor for an epilating device of a kind which includes a support body containing and electrical motor which in use provides a rotational drive to said cylindrical rotor, said cylindrical rotor including

a rotor body

a shaft extending through said rotor body and defining an axis of rotation about which said rotor body can rotate

at least one array of radially extending blade pairs positioned to present mutually interacting pinching edges of each said blade pair at the circumference of the cylindrical rotor, each blade pair including a rotor body stationary blade and a blade movable relative to said stationary blade

wherein each said movable blades of said at least one array is mounted on a shuttle carried by said rotor body and in a cammed disposition with said shaft, said cammed disposition being of a kind wherein cooperative surfaces of said shaft and said shuttle, upon the relative rotation of said shaft with said rotor body and said shuttle carried with said rotor body, moves said shuttle in an oscillating manner in the directions parallel to the axis of rotation of said rotor body, in a manner to repeatedly bring each blade pair into and subsequently out of mutual engagement at least at the circumference of said cylindrical rotor to entrap and subsequently release hairs there between.

2. A cylindrical rotor as claimed in claim 1 wherein said blades of each blade pair are non parallel to each other in a manner to place the pinching edges of the blades of each blade pair at said circumference more proximate to each other.

3. A cylindrical rotor as claimed in claims 1 or 2 wherein said blades of each blade pair include planar facing regions extending radially inwardly from said pinching edges.

4. A cylindrical rotor as claimed in any one of claims 1 to 3 wherein said pinching edges are annularly extending edges with a radius substantially similar to the cylindrical rotor.

5. A cylindrical rotor as claimed in any one of claims 1 to 4 wherein for each blade pair, said pinching edges are proximate more to each other than the planar facing regions in consequence of said blades at least at said planar facing regions being inclined to each other.

6. A cylindrical rotor as claimed in any one of claims 1 to 5 wherein one of said movable and stationary blades of each blade pair are inclined to the radial plane of said cylindrical rotor, the other of each blade pair being parallel to the radial plane of said cylindrical rotor.

7. A cylindrical rotor as claimed in any one of claims 2 to 6 wherein the planar facing region of one of said movable and stationary blades of each blade pair are inclined to the radial plane of said cylindrical rotor, the planar facing region of the other of each blade pair being parallel to the radial plane of said cylindrical rotor.

8. A cylindrical rotor as claimed in any one of claims 1 to 7 wherein said blades are made from a resiliently flexible sheet metal, wherein the blades of each pair, when in mutual engagement with each other are in pinching edge to pinching edge contact and in at least part planar facing region to planar facing region contact.

9. A cylindrical rotor as claimed in claim 1 wherein each said blade movable is positioned relative its respective stationary blade to upon the rotation of said rotor body relative to said shaft, move into and subsequently out of relative engagement with each other, at least at the circumference of said cylindrical rotor.

10. A cylindrical rotor as claimed in any one of claims 1 to 9 wherein said array includes at least two blade pairs.

11. A cylindrical rotor as claimed in any one of claims 1 to 10 wherein said array includes at least three blade pairs.

12. A cylindrical rotor as claimed in any one of claims 1 to 11 wherein said array includes at five blade pairs.

13. A cylindrical rotor as claimed in any one of claims 1 to 12 wherein at least two arrays of blade pairs are provided each array separated from the adjacent array and equi-spaced from each other at least on the circumference of said cylindrical rotor.

14. A cylindrical rotor as claimed in any one of claims 1 to 13 wherein three arrays of blade pairs are provided said arrays equi-spaced from each other on the circumference of said cylindrical rotor.

15. A cylindrical rotor as claimed in any one of claims 1 to 14 wherein said rotor body defines a cavity within which said shuttle is engaged and captured and in a manner to allow it so oscillate in the axial direction relative to the rotor body yet remain stationary in said rotational direction relative to said rotor body.

16. A cylindrical rotor as claimed in claim 15 wherein said cavity includes at least one opening to the perimeter of said rotor body at which said pinching edges of said blade pairs of an array of blades is disposed.

17. A cylindrical rotor as claimed in claim 16 wherein said rotor body includes a perimeter surface intermediate of said opening(s) said perimeter surface in part defining the cylindrical perimeter of said cylindrical rotor.

18. A cylindrical rotor as claimed in claim 17 wherein said perimeter surface intermediate of said opening(s) includes annularly extending grooves.

19. A cylindrical rotor as claimed in claim 17 or 18 wherein said perimeter surface intermediate of said opening(s) includes annularly extending grooves, axially spaced from each other and annularly aligned with each of said pair of blades of said array.

20. A cylindrical rotor as claimed in any one of claims 17 to 19 wherein said perimeter surface intermediate of said opening(s) includes annularly extending grooves, axially spaced from each other and annularly aligned with the space between each of said pair of blades when in said non engaged condition, in order to encourage the alignment of hair with which said perimeter surface is in contact with to align for capturing between a blade pair.

21. A cylindrical rotor as claimed in any one of claims 1 to 20 wherein the plurality of said stationary blades of a first array are in annular alignment with the corresponding blades of the other array(s) of blades.

22. A cylindrical rotor as claimed in any one of claims 1 to 21 wherein a said shuttle for each array is provided to move independent of said other shuttles.

23. A cylindrical rotor as claimed in any one of claims 1 to 22 wherein said shuttle includes a cam follower upstand projecting for engagement with a cam surface of said shaft to positively control the positioning of said shuttle for its reciprocating movement relative to said rotor body.

24. A cylindrical rotor as claimed in claim 23 wherein said cam surface is an annular slot of said shaft and within which said upstand is snugly located.

25. A cylindrical rotor as claimed in claims 23 or 24 wherein said shuttle includes at least two axially spaced upstands, each located within a respective annular slot of said shaft.

26. A cylindrical rotor as claimed in any one of claims 1 to 21 wherein a said camming relationship between said shuttle and said shaft moves said shuttle from a predominant axial position to an intermittent axial position, said predominant axial position corresponding to placing of each blade pair in a non engaged condition and the intermittent axial position corresponding to an engaged condition.

27. A cylindrical rotor as claimed in any one of claims 1 to 26 wherein said shaft extends longitudinally from at least one end of said rotor and includes a means to capture it with a said support body to lock it from rotating with said support body.

28. An epilating device comprising a housing containing a motor which rotationally drives a cylindrical rotor mounted to said housing, said cylindrical rotor partly exposing part of its perimeter through an opening of said housing, said cylindrical rotor further including

i. a rotor body, and

ii. a shaft extending through said rotor body and defining an axis of rotation about which said rotor body can rotate, said shaft remaining stationary to said housing, and

iii. at least one array of radially extending blade pairs positioned to present mutually interacting pinching edges of each said blade pair at the circumference of the cylindrical rotor, each blade pair including a rotor body stationary blade and a blade movable relative to said stationary blade

wherein each said movable blades of said at least one array is mounted on a shuttle carried by said rotor body and in a cammed disposition with said shaft, said cammed disposition being of a kind wherein cooperative surfaces of said shaft and said shuttle, upon the relative rotation of said rotor body and said shuttle carried with said rotor body about said shaft, moves said shuttle in an oscillating manner in the directions parallel to the axis of rotation of said rotor body, in a manner to repeatedly bring each blade pair into and subsequently out of mutual engagement at least at the circumference of said cylindrical rotor to entrap and subsequently release hairs there between said movement between said blade pairs coincident with the passing of said blade pairs through said opening of said housing.

29. An epilating device as claimed in claim 28 wherein said rotor body is mounted to said housing by said shaft.